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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/343,936	06/30/1999	MINH DUONG-VAN	003997.P002	8489

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EXAMINER

DO, NHAT Q

ART UNIT	PAPER NUMBER
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2663

16

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/343,936

Applicant(s)

DUONG-VAN, MINH

Examiner

Nhat Do

ND

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 1-3 is withdrawn in view of the newly discovered reference(s) to U.S. Patent No. 5,243,596. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,243,596 to Port et al.

Regarding to claim 1, Port et al disclose a system for temporarily storing data in an auxiliary buffer (increasing an effective serving rate) at the time congestion occurs at a congested node (router) (Col. 9, lines 49-51).

Port et al also disclose the congested node sends a stop packet to prevent other nodes from keeping sending data (Co. 5, lines 45-61). Since the stop packet needs a one-way-trip time to reach the other nodes and the data packet transmitted by other nodes (right before receiving the stop packet) needs another one-way-trip time to reach the congested node, then it is

approximately a round-trip time interval from the time congestion occurs (storing data in the auxiliary buffer and sending the stop packet) until receiving the last data packet (transmitted from other nodes). Therefore, the time period for storing data in the auxiliary buffer is approximately a round-trip time interval.

Regarding to claims 2, and 3, Port et al. disclose when congestion occurs, the congested node sends a stop packet to other nodes to cease further transmission (Col. 5, line 45-61). It can be understood that the data that is supposed to be stored in the buffer of the congested node is now stored in the buffer of other nodes. Therefore, it is inherent that the auxiliary storage area is associated with a physical storage device external to the congested node.

4. Claims 1 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,405,256 to Lin et al. Lin et al disclose a method for temporarily increasing an effective serving rate (by increasing a buffer size) for a router configured to receive packets transmitted through a communications network at a time instant corresponding to an onset of congestion of the router (Col. 1, line 59-col. 2, 21; col. 3, lines 8-28; col. 4, line 29-38; col. 8, line 46-67; and col. 9, line 1-14).

Although Lin et al do not disclose explicitly the time duration the buffer size increases. However, it is inherent that it depends on the congestion time. Therefore, in the event congestion occurs for a time period approximately a round trip interval, the buffer size also increases for a time period approximately a round trip interval.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al.

Regarding to claim 2, Lin et al. fail to expressly disclose an auxiliary storage area for storing packets that would otherwise be stored in a queue at the router. However, based on what Lin et al. teach: the buffer may include both disk memory and random access memory (Col. 4, line 39-41), it would have been obvious to a person having ordinary skill in the art by the time the invention was made to configure a disk memory as an auxiliary storage area for storing packets that would otherwise be stored in a queue at the router because the auxiliary storage area is only needed on congestion occasions and it is a waste of resources when using expensive queue for a function that is rarely needed.

Regarding to claim 3, Lin et al. disclose when the expandable buffer is full, the router CSM sends a message to the upstream router CSM-1 to cease further transmission (Col. 8, line 66-col. 9, line 3). It can be understood that the data that is supposed to be stored in the buffer of the server CSM is now stored in the memory of the upstream router CSM-1 or the router CSM further expands its auxiliary memory by borrowing the memory of the upstream router CSM-1. Therefore, it is inherent that the auxiliary storage area is associated with a physical storage device external to the router.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhat Do whose telephone number is (703) 305-5743. The examiner can normally be reached on 8:30 AM - 5:30 PM Monday - Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-6743 for regular communications and 703-308-6743 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Nhat Do
Examiner
Art Unit 2663

ND

August 22, 2003


MELVIN MARCELO
PRIMARY EXAMINER